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May 30, 2001

Mary L. Cottrell, Secretary
Department of Telecommunications and Energy
One South Station, 2nd Floor
Boston, Massachusetts 02110

Re: D.T.E. 01-28 — Enhanced Metering – Boston Edison Company,
Cambridge Electric Light Company, Commonwealth Electric Company

Dear Secretary Cottrell:

In compliance with the order of the Department of Telecommunications and Energy (the "Department") dated May 18, 2001 in Advanced Metering, D.T.E. 01-28 (Phase 1), Boston Edison Company ("Boston Edison"), Cambridge Electric Light Company ("Cambridge") and Commonwealth Electric Company ("Commonwealth", together, "NSTAR Electric") hereby submit for approval the following tariffs for (1) Optional Enhanced Metering Service and (2) Optional Interval Data Service:

Boston Edison Company – M.D.T.E. No. 954, Optional Enhanced Metering Service
Boston Edison Company – M.D.T.E. No. 955, Optional Interval Data Service

Cambridge Electric Light Company – M.D.T.E. No. 756, Optional Enhanced Metering Service
Cambridge Electric Light Company – M.D.T.E. No. 757, Optional Interval Data Service

Commonwealth Electric Company – M.D.T.E. No. 492, Optional Enhanced Metering Service
Commonwealth Electric Company – M.D.T.E. No. 493, Optional Interval Data Service

Also enclosed is documentation supporting the fees included for each of these tariffed services. In addition, enclosed please find the filing fee of \$90 for the six tariffs.

The support documentation consists of: (i) a cost schedule for each service offering, including a separate schedule for residential and general service customer classes; (ii) a calculation of each monthly charge; (iii) a calculation of the annual carrying charge; (iv) a calculation of the tax adder; and (v) a summary of assumptions. The

Mary L. Cottrell, Secretary
D.T.E. 01-28 (Phase I)
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detailed cost schedule identifies: the equipment provided; the labor associated with the service; overhead costs (labor loadings); transportation costs; and the tax adder for one-time pricing.

Please note that, at this time, NSTAR Electric is not prepared to offer any of the Additional Services that were included in NSTAR Electric's illustrative tariffs for Optional Enhanced Metering Service submitted in this docket on March 12, 2001. Thus, the tariffs filed today do not identify any Additional Services. NSTAR Electric is working on the development of these services, and will revise its tariffs to include such services when they are operational. Regarding Optional Interval Data Service, NSTAR Electric is developing the Internet-based capability for transmitting the interval data to customers under the annual subscription component of this service. NSTAR Electric expects to implement this Internet access capability within three months. Until that time, NSTAR Electric will transmit interval data by means of e-mail to customers opting for the annual subscription. When the Internet access is available, the annual subscription customers can elect either the Internet access or e-mail to receive the interval data.

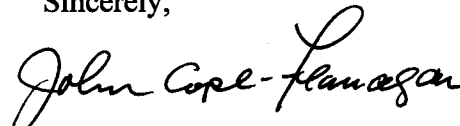
Any correspondence regarding this notice should be directed to the following:

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800 Boylston Street
Boston, MA 02199
(617) 424-2103
fax (617) 424-2733

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Keegan, Werlin & Pabian, LLP
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Boston, MA 02110
(617) 951-1400
fax (617) 951-1354

Thank you for your attention to this matter.

Sincerely,



John Cope-Flanagan

Enclosures

cc: Andrew Kaplan, Hearing Officer
Ronald LeComte, Director, Electric Power Division
Barry Perlmutter, Analyst, Electric Power Division
Service List (electronic)

Boston Edison Company

Tariffs

OPTIONAL ENHANCED METERING SERVICE

AVAILABILITY

Enhanced metering service under this schedule is available to Customers currently receiving metered delivery service from the Company.

SERVICE OPTION 1: Remote Access Metering

Under this service option, the Company will provide metering equipment at the Customer's facility which will allow for periodic readings of the Customer's load through telephone lines. The Company will install, own and maintain the metering equipment. The Customer, at its expense, shall arrange for the installation and operation of the telephone lines (or other mutually agreeable communications system) and service necessary for the readings of the Customer's load. The Customer, or its authorized representative, may receive the data through the optical port on the equipment or electronically. The Company will store load information on the meter for a period of thirty-five (35) days and will read the meters daily.

Fees for Service Option 1:

The Customer has the choice of an initial lump sum payment or monthly fee.

<u>Tariff</u>	<u>Monthly</u>	<u>Initial Lump Sum</u>
Residential Service	\$8.34	\$224.90
General Service		
With interval metering	\$8.46	\$228.12
Without interval metering	\$10.76	\$290.39

SERVICE OPTION 2: Pulse Output Service

Customers who wish to connect their own metering equipment or equipment provided by their authorized representative to the Company's meter may elect this option. The Company will provide a pulse interface device through which the Customer can access meter data. The Customer, or its representative, must purchase, own and maintain a modem-equipped recording device in order to access meter pulses.

Issued by: R. D. Wright
President

Filed: May 30, 2001
Effective: June 1, 2001

OPTIONAL ENHANCED METERING SERVICE

Fees for Service Option 2:

The Customer has the choice of an initial lump sum payment or monthly fee.

<u>Tariff</u>	<u>Monthly</u>	<u>Initial Lump Sum</u>
Residential Service	\$8.05	\$217.77
General Service		
With interval metering	\$7.66	\$207.04

SPECIAL REQUESTS

The Company will consider requests for special metering from Customers taking service under Option 1. The Company will respond to any such written requests within thirty (30) days and will address availability, cost of implementation, technical alternatives and other issues related to the utilization of the requested metering equipment. Upon request, the Company will furnish to the Customer a list of approved interval recording meters.

BILLING AND SETTLEMENTS

- A. All remote access metering in Option 1 and Customer-owned modem equipped recorders in Option 2 will be read daily by the Company and will be reported to ISO New England, Inc. for load settlement purposes. The Company will substitute estimated load profile data in lieu of actual hourly metered data for the Customer when Customer-owned equipment has failed or communication capability has otherwise been lost.**
- B. Disputes arising from the use of load values derived from Customer-owned recording equipment under Option 2, hereunder, will be settled based on the actual quantities recorded on the Company's billing meters for the time period in question.**

TERM OF SERVICE

The minimum term for services provided hereunder for monthly-charged Customers shall be twelve (12) months from the date of installation of the enhanced metering equipment.

Issued by: R. D. Wright
President

Filed: May 30, 2001
Effective: June 1, 2001

OPTIONAL ENHANCED METERING SERVICE

TERMS AND CONDITIONS

The Company's schedule of Terms and Conditions for Distribution Service, as in effect from time to time, shall apply to service under this schedule to the extent that they are not inconsistent with the specific provisions of this schedule.

Issued by: R. D. Wright
President

Filed: May 30, 2001
Effective: June 1, 2001

OPTIONAL INTERVAL DATA SERVICE

AVAILABILITY

Service under this schedule is available for customers receiving service under the Company's Optional Enhanced Metering Service. Customers must have a Company-owned interval data recorder installed at their facilities.

CHARACTER OF SERVICE

Interval data is made available to Customers or their authorized agents through e-mail or through basic web access. Web-based access allows for the retrieval of interval load data through an Internet account. The load data files contain 5 or 15-minute usage data that is ASCII text file compatible with spreadsheet programs. Files will become available after the standard monthly meter reads.

FEES:

Fees for this service will vary depending upon the number of accounts and the frequency of requests for interval data.

One-time request (12 months of data)	\$36.64
Annual Subscription	\$161.64

TERMS AND CONDITIONS

The Company's schedule of Terms and Conditions, as in effect from time to time, shall apply to this service to the extent that they are not inconsistent with the specific provisions of this schedule.

Issued by: R. D. Wright
President

Filed: May 30, 2001
Effective: June 1, 2001

Boston Edison Company

Cost Support Schedules

Pricing of Enhanced Metering - Pulse Output**PULSE OUTPUT (General Service)****Equipment Costs**

Meter with Pulse output board (incremental)	\$30.00
Customer Interface Box	\$27.50
Misc. Material	\$5.00
Total Equipment Costs	<hr/> \$62.50

Labor

Meter Tech	1 FTE
Average Installation w/Travel	2 Hours
Average Hourly Rate	\$27.74
Total Labor Costs	\$55.48

Accounting/Billing Clerk	1 FTE
Average Processing Time	0.25 Hours
Average Hourly Rate	\$18.99
Total Labor Costs	\$4.75

Total Labor Costs	\$60.23
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Labor Loadings	\$61.43
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Transportation (@\$4.67/hour)	\$9.33
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CIAC Adder	\$13.54
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Total One-Time Pricing	\$207.04
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Monthly Pricing (See Schedule BE-2)	\$7.66
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Pricing of Enhanced Metering - Pulse Output

PULSE OUTPUT (Residential)

Equipment Costs

Meter with Pulse output board (incremental)	\$40.00
Customer Interface Box	\$27.50
Misc. Material	\$5.00
Total Equipment Costs	\$72.50

Labor

Meter Tech	1 FTE
Average Installation w/Travel	2 Hours
Average Hourly Rate	\$27.74
Total Labor Costs	\$55.48

Accounting/Billing Clerk	1 FTE
Average Processing Time	0.25 Hours
Average Hourly Rate	\$18.99
Total Labor Costs	\$4.75

Total Labor Costs	\$60.23
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Labor Loadings	\$61.43
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Transportation (@\$4.67/hour)	\$9.33
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CIAC Adder	\$14.28
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Total One-Time Pricing	\$217.77
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Monthly Pricing (See Schedule BE-2)	\$8.05
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Pricing of Enhanced Metering - Interval Data**Existing Interval Metering Customers - One Time (E-mail)**

Equipment Costs	
Meter with Pulse output board (incremental)	
Customer Interface Box	
Misc. Material	
Total Equipment Costs	<u>\$0.00</u>
Labor	
Meter Clerk	1 FTE
Average Setup Time	0.25 Hours
Average Hourly Rate	\$20.18
Total Labor Costs	\$5.05
Accounting/Billing Clerk	1 FTE
Average Processing Time	0.5 Hours
Average Hourly Rate	\$18.99
Total Labor Costs	\$9.50
Total Labor Costs	\$14.54
Labor Loadings and Mark-Up	\$22.10 (A)
Total One-Time Pricing	\$36.64

(A) Customer Care Corporate Overhead Rate (102%) Plus Mark-Up (50%).

Proposed Pricing of Enhanced Metering Services - Interval Data**Existing Interval Metering Customers - Annual Subscription Pricing (Basic Web Access)**

Equipment Costs	
Meter with Pulse output board (incremental)	
Customer Interface Box	
Misc. Material	
Total Equipment Costs	0.00
Massachusetts Sales Tax on Material (@5%)	
Labor	
Meter Clerk	1 FTE
Average Setup Time	0.25 Hours
Average Hourly Rate	\$20.18
Total Labor Costs	\$5.05
Accounting/Billing Clerk	1 FTE
Average Processing Time	0.5 Hours
Average Hourly Rate	\$18.99
Total Labor Costs	\$9.50
Total Labor Costs	\$14.54
Labor Loadings and Mark-Up	\$22.10 (A)
Computer Related Software/Hardware	\$125.00 (B)
Total Annual Subscription Pricing	\$161.64

(A) Customer Care Corporate Overhead Rate (102%) Plus Mark-Up (50%).

(B) Computer Related Software/Hardware (Basic Web Access):

Web Setup/Maintenance	\$25,000
Estimated Number of Customers	200
Annual Subscription Cost	\$125

Pricing of Enhanced Metering - Remote Access Metering

Remote Access Metering (General Services with Interval Metering)

Equipment Costs	
Remote Meter (incremental)	\$103.00
Customer Interface Box	
Misc. Material	
Total Equipment Costs	\$103.00
Labor	
Meter Clerk	1 FTE
Average Setup Time	0.25 Hours
Average Hourly Rate	\$20.18
Total Labor Costs	\$5.05
Accounting/Billing Clerk	1 FTE
Average Processing Time	0.25 Hours
Average Hourly Rate	\$18.99
Total Labor Costs	\$4.75
Meter Tech	1 FTE
Average Installation w/Travel	1.5 Hours
Average Hourly Rate	\$27.74
Total Labor Costs	\$41.61
Total Labor Costs	\$51.40
Labor Loadings	\$52.43
Transportation (@\$4.67/hour)	\$7.00
CIAC Adder	\$14.29
Total One-Time Pricing	\$228.12
Monthly Pricing (See Schedule BE-2)	\$8.46

(A) Cost for telephone installation and monthly telephone fee is paid for by the customer.

Pricing of Enhanced Metering - Remote Access Metering

Remote Access Metering (General Services without Interval Metering)

Equipment Costs	
Remote Meter (incremental)	\$161.00
Customer Interface Box	
Misc. Material	
Total Equipment Costs	<u>\$161.00</u>
Labor	
Meter Clerk	1 FTE
Average Setup Time	0.25 Hours
Average Hourly Rate	\$20.18
Total Labor Costs	\$5.05
Accounting/Billing Clerk	1 FTE
Average Processing Time	0.25 Hours
Average Hourly Rate	\$18.99
Total Labor Costs	\$4.75
Meter Tech	1 FTE
Average Installation w/Travel	1.5 Hours
Average Hourly Rate	\$27.74
Total Labor Costs	\$41.61
Total Labor Costs	\$51.40
Labor Loadings	\$52.43
Transportation (@\$4.67/hour)	\$7.00
CIAC Adder	\$18.56
Total One-Time Pricing	\$290.39
Monthly Pricing (See Schedule BE-2)	\$10.76

(A) Cost for telephone installation and monthly telephone fee is paid for by the customer.

Pricing of Enhanced Metering - Remote Access Metering

Remote Access Metering - (Residential)

Equipment Costs	
Remote Meter (incremental)	\$100.00
Customer Interface Box	
Misc. Material	
Total Equipment Costs	\$100.00
Labor	
Meter Clerk	1 FTE
Average Setup Time	0.25 Hours
Average Hourly Rate	\$20.18
Total Labor Costs	\$5.05
Accounting/Billing Clerk	1 FTE
Average Processing Time	0.25 Hours
Average Hourly Rate	\$18.99
Total Labor Costs	\$4.75
Meter Tech	1 FTE
Average Installation w/Travel	1.5 Hours
Average Hourly Rate	\$27.74
Total Labor Costs	\$41.61
Total Labor Costs	\$51.40
Labor Loadings	\$52.43
Transportation (@\$4.67/hour)	\$7.00
CIAC Adder	\$14.07
Total One-Time Pricing	\$224.90
Monthly Pricing (See Schedule BE-2)	\$8.34

(A) Cost for telephone installation and monthly telephone fee is paid for by the customer.

Calculation of Monthly Charge for Enhanced Metering Services

Pulse Output (General Services)

	Total Pricing	\$207.04
Less:	CIAC Adder	(13.54)
		<u>\$193.49</u>
	Proposed Annual Carrying Charge	47.49%
	Annual Enhanced Metering Charge	\$91.89
	Monthly Enhanced Metering Charge	\$7.66

Pulse Output (Residential)

	Total Pricing	\$217.77
Less:	CIAC Adder	(14.28)
		<u>\$203.49</u>
	Proposed Annual Carrying Charge	47.49%
	Annual Enhanced Metering Charge	\$96.64
	Monthly Enhanced Metering Charge	\$8.05

Remote Access Metering (General Service with Interval Metering)

	Total Pricing	\$228.12
Less:	CIAC Adder	(14.29)
		<u>\$213.83</u>
	Proposed Annual Carrying Charge	47.49%
	Annual Enhanced Metering Charge	\$101.55
	Monthly Enhanced Metering Charge	\$8.46

Remote Access Metering (General Service without Interval Metering)

	Total Pricing	\$290.39
Less:	CIAC Adder	(18.56)
		<u>\$271.83</u>
	Proposed Annual Carrying Charge	47.49%
	Annual Enhanced Metering Charge	\$129.10
	Monthly Enhanced Metering Charge	\$10.76

Remote Access Metering (Residential)

	Total Pricing	\$224.90
Less:	CIAC Adder	(14.07)
		<u>\$210.83</u>
	Proposed Annual Carrying Charge	47.49%
	Annual Enhanced Metering Charge	\$100.13
	Monthly Enhanced Metering Charge	\$8.34

BOSTON EDISON COMPANY

Schedule BE-3
Page 1 of 1

Boston Edison

Annual Carrying Charge Calculation (A)

	Year	Investment	Accum Deprec.	Rate Base	Return	Income Tax	Deprec.	Revenue Requirement	Levelized
Cost of Debt									
Cost of Preferred Equity	1	1,000	333	667	67	27	333	427	\$383.27
Cost of Common Equity	2	1,000	667	333	33	14	333	380	\$383.27
Total Cost of Capital	3	1,000	1,000	-	-	-	333	333	\$383.27
Income Taxes on Equity	Total				100	41	1,000	1,141	\$1,149.81
Depreciation Expense									

(A) Based on 1999 FERC Form 1 data. Assumes 3-year recovery period.

Boston Edison Company
Contribution In Aid Of Construction
Calculation of CIAC Adder

	Year	MACRS Rate	Begin. Bal. Cash Flow	Tax Liab. & Asset Deprec	Carrying Charges	Ending Bal. Cash Flow
	1	20.00%	\$7	(35)	1	(26)
	2	32.00%	(26)	14	(4)	(16)
	3	19.20%	(16)	8	(2)	(10)
	4	11.52%	(10)	5	(1)	(6)
	5	11.52%	(6)	5	(1)	(2)
	6	5.76%	(2)	2	(0)	0
	7	0.00%	-	-	-	-
	8	0.00%	-	-	-	-
	9	0.00%	-	-	-	-
	10	0.00%	-	-	-	-
	11	0.00%	-	-	-	-
	12	0.00%	-	-	-	-
	13	0.00%	-	-	-	-
	14	0.00%	-	-	-	-
	15	0.00%	-	-	-	-
	16	0.00%	-	-	-	-
	17	0.00%	-	-	-	-
	18	0.00%	-	-	-	-
	19	0.00%	-	-	-	-
	20	0.00%	-	-	-	-
	21	0.00%	-	-	-	-
				<u>(0.000)</u>	<u>(7.363)</u>	

Construction cost required
before tax effect

\$100

Return on rate base
per 1999 Form 1

13.94%

Contribution required

Construction cost
NPV of tax payment

\$100
7.363

Total CIAC to be paid
by contributor

\$107.363

Actual Calc. NPV
Multiplication Factor

1.073633

CIAC Adder

1999 FERC Form 1

Long term debt

45.12% 8.26%

3.73%

Preferred equity

4.51% 6.41%

0.29%

Common/Preferred equity

50.37% 11.75%

5.92%

Tax reimbursement on equity

4.01%

13.94%

ENHANCED METERING AND INTERVAL DATA COST ASSUMPTIONS

	<u>Boston Edison</u>
<u>Material: (A)</u>	
Pulse (Customer) Interface Box	\$27.50
Incremental cost of new meters with output board (General)	\$30.00
Incremental cost of new meters with output board (Residential)	\$40.00
Misc Material	\$5.00
Incremental Remote Meter Cost	\$103.00
Incremental Remote Meter Cost (cust w/o interval data)	\$161.00
Incremental Remote Meter Cost (Residential)	\$100.00
<u>Mass State Tax:</u>	Assume Tax Exempt
<u>Labor: (Hourly Rates) (B)</u>	
Meter Clerk	\$20.18
Meter Technician	\$27.74
Accounting/Billing Clerk	\$18.99
<u>Transportation Costs:(C)</u>	
2001 Annual Cost	\$9,708.00
Annual Hours	2,080.00
Average Hourly Cost	\$4.67
<u>Customer Care Corporate Overheads Rate</u>	102.00% (D)
<u>CIAC Adder</u>	7.36% (E)
<u>Carrying Charge</u>	47.49% (F)

(A) Equipment costs based on vendor quotes.

(B) Average labor rates for personnel assigned to function, based on collective bargaining agreements.

(C) Meter van costs including lease, maintenance, repair, and fuel.

(D) Per Budgeting & Forecasting 1999 DMG Study which includes: paid absence time, benefits, payroll taxes, admin & supervision and corp overhead.

(E) This adder represents the recovery of carrying charges on tax payments related to the value of the contribution received. Assumes a 5-year tax life. See Schedule BE-4.

(F) See Schedule BE-3.

Cambridge Electric Light Company

Tariffs

OPTIONAL ENHANCED METERING SERVICE

AVAILABILITY

Enhanced metering service under this schedule is available to Customers currently receiving metered delivery service from the Company.

SERVICE OPTION 1: Remote Access Metering

Under this service option, the Company will provide metering equipment at the Customer's facility which will allow for periodic readings of the Customer's load through telephone lines. The Company will install, own and maintain the metering equipment. The Customer, at its expense, shall arrange for the installation and operation of the telephone lines (or other mutually agreeable communications system) and service necessary for the readings of the Customer's load. The Customer, or its authorized representative, may receive the data through the optical port on the equipment or electronically. The Company will store load information on the meter for a period of thirty-five (35) days and will read the meters daily.

Fees for Service Option 1:

The Customer has the choice of an initial lump sum payment or monthly fee.

<u>Tariff</u>	<u>Monthly</u>	<u>Initial Lump Sum</u>
Residential Service	\$8.47	\$226.12
General Service		
With interval metering	\$8.59	\$229.36
Without interval metering	\$10.92	\$292.00

SERVICE OPTION 2: Pulse Output Service

Customers who wish to connect their own metering equipment or equipment provided by their authorized representative to the Company's meter may elect this option. The Company will provide a pulse interface device through which the Customer can access meter data. The Customer, or its representative, must purchase, own and maintain a modem-equipped recording device in order to access meter pulses.

Issued by: R. D. Wright
President

Filed: May 30, 2001
Effective: June 1, 2001

OPTIONAL ENHANCED METERING SERVICE

Fees for Service Option 2:

The Customer has the choice of an initial lump sum payment or monthly fee.

<u>Tariff</u>	<u>Monthly</u>	<u>Initial Lump Sum</u>
Residential Service	\$8.17	\$219.01
General Service		
With interval metering	\$7.77	\$208.21

SPECIAL REQUESTS

The Company will consider requests for special metering from Customers taking service under Option 1. The Company will respond to any such written requests within thirty (30) days and will address availability, cost of implementation, technical alternatives and other issues related to the utilization of the requested metering equipment. Upon request, the Company will furnish to the Customer a list of approved interval recording meters.

BILLING AND SETTLEMENTS

- A. All remote access metering in Option 1 and Customer-owned modem equipped recorders in Option 2 will be read daily by the Company and will be reported to ISO New England, Inc. for load settlement purposes. The Company will substitute estimated load profile data in lieu of actual hourly metered data for the Customer when Customer-owned equipment has failed or communication capability has otherwise been lost.**
- B. Disputes arising from the use of load values derived from Customer-owned recording equipment under Option 2, hereunder, will be settled based on the actual quantities recorded on the Company's billing meters for the time period in question.**

TERM OF SERVICE

The minimum term for services provided hereunder for monthly-charged Customers shall be twelve (12) months from the date of installation of the enhanced metering equipment.

Issued by: R. D. Wright
President

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OPTIONAL ENHANCED METERING SERVICE

TERMS AND CONDITIONS

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President

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OPTIONAL INTERVAL DATA SERVICE

AVAILABILITY

Service under this schedule is available for customers receiving service under the Company's Optional Enhanced Metering Service. Customers must have a Company-owned interval data recorder installed at their facilities.

CHARACTER OF SERVICE

Interval data is made available to Customers or their authorized agents through e-mail or through basic web access. Web-based access allows for the retrieval of interval load data through an Internet account. The load data files contain 5 or 15-minute usage data that is ASCII text file compatible with spreadsheet programs. Files will become available after the standard monthly meter reads.

FEES:

Fees for this service will vary depending upon the number of accounts and the frequency of requests for interval data.

One-time request (12 months of data)	\$36.64
Annual Subscription	\$161.64

TERMS AND CONDITIONS

The Company's schedule of Terms and Conditions, as in effect from time to time, shall apply to this service to the extent that they are not inconsistent with the specific provisions of this schedule.

Issued by: R. D. Wright
President

Filed: May 30, 2001
Effective: June 1, 2001

Cambridge Electric Light Company

Cost Support Schedules

Pricing of Enhanced Metering - Pulse Output**PULSE OUTPUT (General Service)****Equipment Costs**

Meter with Pulse output board (incremental)	\$30.00
Customer Interface Box	\$27.50
Misc. Material	\$5.00
Total Equipment Costs	<hr/> \$62.50

Labor

Meter Tech	1 FTE
Average Installation w/Travel	2 Hours
Average Hourly Rate	\$27.74
Total Labor Costs	\$55.48

Accounting/Billing Clerk	1 FTE
Average Processing Time	0.25 Hours
Average Hourly Rate	\$18.99
Total Labor Costs	\$4.75

Total Labor Costs	\$60.23
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Labor Loadings	\$61.43
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Transportation (@\$4.67/hour)	\$9.33
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CIAC Adder	\$14.71
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Total One-Time Pricing	\$208.21
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Monthly Pricing (See Schedule CAM-2)	\$7.77
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Pricing of Enhanced Metering - Pulse Output**PULSE OUTPUT (Residential)****Equipment Costs**

Meter with Pulse output board (incremental)	\$40.00
Customer Interface Box	\$27.50
Misc. Material	\$5.00
Total Equipment Costs	\$72.50

Labor

Meter Tech	1 FTE
Average Installation w/Travel	2 Hours
Average Hourly Rate	\$27.74
Total Labor Costs	\$55.48

Accounting/Billing Clerk	1 FTE
Average Processing Time	0.25 Hours
Average Hourly Rate	\$18.99
Total Labor Costs	\$4.75

Total Labor Costs	\$60.23
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Labor Loadings	\$61.43
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Transportation (@\$4.67/hour)	\$9.33
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CIAC Adder	\$15.51
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Total One-Time Pricing	\$219.01
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Monthly Pricing (See Schedule CAM-2)	\$8.17
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Pricing of Enhanced Metering - Interval Data**Existing Interval Metering Customers - One Time (E-mail)****Equipment Costs**

Meter with Pulse output board (incremental)	
Customer Interface Box	
Misc. Material	
Total Equipment Costs	\$0.00

Labor

Meter Clerk	1 FTE
Average Setup Time	0.25 Hours
Average Hourly Rate	\$20.18
Total Labor Costs	\$5.05
Accounting/Billing Clerk	1 FTE
Average Processing Time	0.5 Hours
Average Hourly Rate	\$18.99
Total Labor Costs	\$9.50
Total Labor Costs	\$14.54
Labor Loadings and Mark-Up	\$22.10 (A)
Total One-Time Pricing	\$36.64

(A) Customer Care Corporate Overhead Rate (102%) Plus Mark-Up (50%).

Proposed Pricing of Enhanced Metering Services - Interval Data**Existing Interval Metering Customers - Annual Subscription Pricing (Basic Web Access)**

Equipment Costs	
Meter with Pulse output board (incremental)	
Customer Interface Box	
Misc. Material	
Total Equipment Costs	0.00
Massachusetts Sales Tax on Material (@5%)	
Labor	
Meter Clerk	1 FTE
Average Setup Time	0.25 Hours
Average Hourly Rate	\$20.18
Total Labor Costs	\$5.05
Accounting/Billing Clerk	1 FTE
Average Processing Time	0.5 Hours
Average Hourly Rate	\$18.99
Total Labor Costs	\$9.50
Total Labor Costs	\$14.54
Labor Loadings and Mark-Up	\$22.10 (A)
Computer Related Software/Hardware	\$125.00 (B)
Total Annual Subscription Pricing	\$161.64

(A) Customer Care Corporate Overhead Rate (102%) Plus Mark-Up (50%).

(B) Computer Related Software/Hardware (Basic Web Access):

Web Setup/Maintenance	\$25,000
Estimated Number of Customers	200
Annual Subscription Cost	\$125

Pricing of Enhanced Metering - Remote Access Metering

Remote Access Metering (General Services with Interval Metering)

Equipment Costs

Remote Meter (incremental)	\$103.00
Customer Interface Box	
Misc. Material	
Total Equipment Costs	\$103.00

Labor

Meter Clerk	1 FTE
Average Setup Time	0.25 Hours
Average Hourly Rate	\$20.18
Total Labor Costs	\$5.05

Accounting/Billing Clerk	1 FTE
Average Processing Time	0.25 Hours
Average Hourly Rate	\$18.99
Total Labor Costs	\$4.75

Meter Tech	1 FTE
Average Installation w/Travel	1.5 Hours
Average Hourly Rate	\$27.74
Total Labor Costs	\$41.61

Total Labor Costs	\$51.40
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Labor Loadings	\$52.43
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Transportation (@\$4.67/hour)	\$7.00
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CIAC Adder	\$15.53
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Total One-Time Pricing	\$229.36
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Monthly Pricing (See Schedule CAM-2)	\$8.59
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(A) Cost for telephone installation and monthly telephone fee is paid for by the customer.

Pricing of Enhanced Metering - Remote Access Metering

Remote Access Metering (General Services without Interval Metering)

Equipment Costs

Remote Meter (incremental)	\$161.00
Customer Interface Box	
Misc. Material	
Total Equipment Costs	\$161.00

Labor

Meter Clerk	1 FTE
Average Setup Time	0.25 Hours
Average Hourly Rate	\$20.18
Total Labor Costs	\$5.05

Accounting/Billing Clerk	1 FTE
Average Processing Time	0.25 Hours
Average Hourly Rate	\$18.99
Total Labor Costs	\$4.75

Meter Tech	1 FTE
Average Installation w/Travel	1.5 Hours
Average Hourly Rate	\$27.74
Total Labor Costs	\$41.61

Total Labor Costs	\$51.40
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Labor Loadings	\$52.43
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Transportation (@\$4.67/hour)	\$7.00
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CIAC Adder	\$20.17
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Total One-Time Pricing	\$292.00
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Monthly Pricing (See Schedule CAM-2)	\$10.92
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(A) Cost for telephone installation and monthly telephone fee is paid for by the customer.

Pricing of Enhanced Metering - Remote Access Metering

Remote Access Metering - (Residential)

Equipment Costs	
Remote Meter (incremental)	\$100.00
Customer Interface Box	
Misc. Material	
Total Equipment Costs	<hr/> \$100.00
Labor	
Meter Clerk	1 FTE
Average Setup Time	0.25 Hours
Average Hourly Rate	\$20.18
Total Labor Costs	\$5.05
Accounting/Billing Clerk	1 FTE
Average Processing Time	0.25 Hours
Average Hourly Rate	\$18.99
Total Labor Costs	\$4.75
Meter Tech	1 FTE
Average Installation w/Travel	1.5 Hours
Average Hourly Rate	\$27.74
Total Labor Costs	\$41.61
Total Labor Costs	\$51.40
Labor Loadings	\$52.43
Transportation (@\$4.67/hour)	\$7.00
CIAC Adder	\$15.29
Total One-Time Pricing	\$226.12
Monthly Pricing (See Schedule CAM-2)	\$8.47

(A) Cost for telephone installation and monthly telephone fee is paid for by the customer.

CAMBRIDGE ELECTRIC LIGHT COMPANY

Schedule CAM-2

Page 1 of 1

Calculation of Monthly Charge for Enhanced Metering Services

Pulse Output (General Services)

	Total Pricing	\$208.21
Less:	CIAC Adder	<u>(14.71)</u>
		\$193.49
	Proposed Annual Carrying Charge	48.19%
	Annual Enhanced Metering Charge	\$93.25
	Monthly Enhanced Metering Charge	\$7.77

Pulse Output (Residential)

	Total Pricing	\$219.01
Less:	CIAC Adder	<u>(15.51)</u>
		\$203.49
	Proposed Annual Carrying Charge	48.19%
	Annual Enhanced Metering Charge	\$98.07
	Monthly Enhanced Metering Charge	\$8.17

Remote Access Metering (General Service with Interval Metering)

	Total Pricing	\$229.36
Less:	CIAC Adder	<u>(15.53)</u>
		\$213.83
	Proposed Annual Carrying Charge	48.19%
	Annual Enhanced Metering Charge	\$103.05
	Monthly Enhanced Metering Charge	\$8.59

Remote Access Metering (General Service without Interval Metering)

	Total Pricing	\$292.00
Less:	CIAC Adder	<u>(20.17)</u>
		\$271.83
	Proposed Annual Carrying Charge	48.19%
	Annual Enhanced Metering Charge	\$131.00
	Monthly Enhanced Metering Charge	\$10.92

Remote Access Metering (Residential)

	Total Pricing	\$226.12
Less:	CIAC Adder	<u>(15.29)</u>
		\$210.83
	Proposed Annual Carrying Charge	48.19%
	Annual Enhanced Metering Charge	\$101.60
	Monthly Enhanced Metering Charge	\$8.47

Schedule CAM-3
Page 1 of 1

(A) Based on 1999 FERC Form 1 data. Assumes 3-Year recovery period.

**Cambridge Electric Light Company
Contribution In Aid Of Construction
Calculation of CIAC Adder**

Schedule CAM-4

		Year	MACRS Rate	Begin. Bal. Cash Flow	Tax Liab. & Asset Deprec	Carrying Charges	Ending Bal. Cash Flow
Construction cost required before tax effect	\$100	1	20.00%	\$8	(35)	1	(26)
		2	32.00%	(26)	14	(4)	(16)
Return on rate base per 1999 Form 1	15.66%	3	19.20%	(16)	8	(2)	(10)
		4	11.52%	(10)	5	(2)	(6)
		5	11.52%	(6)	5	(1)	(2)
		6	5.76%	(2)	2	(0)	0
Contribution required		7	0.00%	-	-	-	-
		8	0.00%	-	-	-	-
		9	0.00%	-	-	-	-
Construction cost NPV of tax payment	\$100 8.002	10	0.00%	-	-	-	-
		11	0.00%	-	-	-	-
		12	0.00%	-	-	-	-
Total CIAC to be paid by contributor	\$108.002	13	0.00%	-	-	-	-
		14	0.00%	-	-	-	-
		15	0.00%	-	-	-	-
		16	0.00%	-	-	-	-
Actual Calc. NPV Multiplication Factor	1.08002	17	0.00%	-	-	-	-
		18	0.00%	-	-	-	-
		19	0.00%	-	-	-	-
		20	0.00%	-	-	-	-
		21	0.00%	-	-	-	-
CIAC Adder					(0.000)	(8.001)	

1999 FERC Form 1			
Long term debt	24.75%	8.25%	2.04%
Common equity	75.25%	11.00%	8.28%
Tax reimbursement on equity			<u>5.34%</u>
			15.66%

ENHANCED METERING AND INTERVAL DATA COST ASSUMPTIONSCambridge ElectricMaterial: (A)

Pulse (Customer) Interface Box	\$27.50
Incremental cost of new meters with output board (General)	\$30.00
Incremental cost of new meters with output board (Residential)	\$40.00
Misc Material	\$5.00
Incremental Remote Meter Cost	\$103.00
Incremental Remote Meter Cost (cust w/o interval data)	\$161.00
Incremental Remote Meter Cost (Residential)	\$100.00

Mass State Tax:

Assume Tax Exempt

Labor: (Hourly Rates) (B)

Meter Clerk	\$20.18
Meter Technician	\$27.74
Accounting/Billing Clerk	\$18.99

Transportation Costs: (C.)

2001 Annual Cost	\$9,708.00
Annual Hours	2,080.00
Average Hourly Cost	\$4.67

Customer Care Corporate Overheads Rate 102.00% (D)Contribution in Aid of Construction Adder 8.00% (E)Carrying Charge 48.19% (F)

- (A) Equipment costs based on vendor quotes.
- (B) Average labor rates for personnel assigned to function, based on collective bargaining agreements.
- (C) Meter van costs including lease, maintenance, repair, and fuel.
- (D) Per Budgeting & Forecasting 1999 DMG Study which includes: paid absence time, benefits, payroll taxes, admin & supervision and corp. overhead.
- (E) This adder represents the recovery of carrying charges on tax payments related to the value of the contribution received. Assumes a 5-year tax life. See Schedule CAM-4.
- (F) See Schedule CAM-3.

Commonwealth Electric Company

Tariffs

OPTIONAL ENHANCED METERING SERVICE

AVAILABILITY

Enhanced metering service under this schedule is available to Customers currently receiving metered delivery service from the Company.

SERVICE OPTION 1: Remote Access Metering

Under this service option, the Company will provide metering equipment at the Customer's facility which will allow for periodic readings of the Customer's load through telephone lines. The Company will install, own and maintain the metering equipment. The Customer, at its expense, shall arrange for the installation and operation of the telephone lines (or other mutually agreeable communications system) and service necessary for the readings of the Customer's load. The Customer, or its authorized representative, may receive the data through the optical port on the equipment or electronically. The Company will store load information on the meter for a period of thirty-five (35) days and will read the meters daily.

Fees for Service Option 1:

The Customer has the choice of an initial lump sum payment or monthly fee.

<u>Tariff</u>	<u>Monthly</u>	<u>Initial Lump Sum</u>
Residential Service	\$8.77	\$225.60
General Service		
With interval metering	\$8.90	\$228.83
Without interval metering	\$11.31	\$291.31

SERVICE OPTION 2: Pulse Output Service

Customers who wish to connect their own metering equipment or equipment provided by their authorized representative to the Company's meter may elect this option. The Company will provide a pulse interface device through which the Customer can access meter data. The Customer, or its representative, must purchase, own and maintain a modem-equipped recording device in order to access meter pulses.

Issued by: R. D. Wright
President

Filed: May 30, 2001
Effective: June 1, 2001

OPTIONAL ENHANCED METERING SERVICE

Fees for Service Option 2:

The Customer has the choice of an initial lump sum payment or monthly fee.

<u>Tariff</u>	<u>Monthly</u>	<u>Initial Lump Sum</u>
Residential Service	\$8.47	\$218.48
General Service		
With interval metering	\$8.05	\$207.71

SPECIAL REQUESTS

The Company will consider requests for special metering from Customers taking service under Option 1. The Company will respond to any such written requests within thirty (30) days and will address availability, cost of implementation, technical alternatives and other issues related to the utilization of the requested metering equipment. Upon request, the Company will furnish to the Customer a list of approved interval recording meters.

BILLING AND SETTLEMENTS

- A. All remote access metering in Option 1 and Customer-owned modem equipped recorders in Option 2 will be read daily by the Company and will be reported to ISO New England, Inc. for load settlement purposes. The Company will substitute estimated load profile data in lieu of actual hourly metered data for the Customer when Customer-owned equipment has failed or communication capability has otherwise been lost.**
- B. Disputes arising from the use of load values derived from Customer-owned recording equipment under Option 2, hereunder, will be settled based on the actual quantities recorded on the Company's billing meters for the time period in question.**

TERM OF SERVICE

The minimum term for services provided hereunder for monthly-charged Customers shall be twelve (12) months from the date of installation of the enhanced metering equipment.

Issued by: R. D. Wright
President

Filed: May 30, 2001
Effective: June 1, 2001

OPTIONAL ENHANCED METERING SERVICE

TERMS AND CONDITIONS

The Company's schedule of Terms and Conditions for Distribution Service, as in effect from time to time, shall apply to service under this schedule to the extent that they are not inconsistent with the specific provisions of this schedule.

Issued by: R. D. Wright
President

Filed: May 30, 2001
Effective: June 1, 2001

OPTIONAL INTERVAL DATA SERVICE

AVAILABILITY

Service under this schedule is available for customers receiving service under the Company's Optional Enhanced Metering Service. Customers must have a Company-owned interval data recorder installed at their facilities.

CHARACTER OF SERVICE

Interval data is made available to Customers or their authorized agents through e-mail or through basic web access. Web-based access allows for the retrieval of interval load data through an Internet account. The load data files contain 5 or 15-minute usage data that is ASCII text file compatible with spreadsheet programs. Files will become available after the standard monthly meter reads.

FEES:

Fees for this service will vary depending upon the number of accounts and the frequency of requests for interval data.

One-time request (12 months of data)	\$36.64
Annual Subscription	\$161.64

TERMS AND CONDITIONS

The Company's schedule of Terms and Conditions, as in effect from time to time, shall apply to this service to the extent that they are not inconsistent with the specific provisions of this schedule.

Issued by: R. D. Wright
President

Filed: May 30, 2001
Effective: June 1, 2001

Commonwealth Electric Company

Cost Support Schedules

Pricing of Enhanced Metering - Pulse Output**PULSE OUTPUT (General Service)****Equipment Costs**

Meter with Pulse output board (incremental)	\$30.00
Customer Interface Box	\$27.50
Misc. Material	\$5.00
Total Equipment Costs	<hr/> \$62.50

Labor

Meter Tech	1 FTE
Average Installation w/Travel	2 Hours
Average Hourly Rate	\$27.74
Total Labor Costs	\$55.48

Accounting/Billing Clerk	1 FTE
Average Processing Time	0.25 Hours
Average Hourly Rate	\$18.99
Total Labor Costs	\$4.75

Total Labor Costs	\$60.23
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Labor Loadings	\$61.43
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Transportation (@\$4.67/hour)	\$9.33
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CIAC Adder	\$14.21
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Total One-Time Pricing	\$207.71
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Monthly Pricing (See Schedule COM-2)	\$8.05
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Pricing of Enhanced Metering - Pulse Output**PULSE OUTPUT (Residential)****Equipment Costs**

Meter with Pulse output board (incremental)	\$40.00
Customer Interface Box	\$27.50
Misc. Material	\$5.00
Total Equipment Costs	<hr/> \$72.50

Labor

Meter Tech	1 FTE
Average Installation w/Travel	2 Hours
Average Hourly Rate	\$27.74
Total Labor Costs	\$55.48

Accounting/Billing Clerk	1 FTE
Average Processing Time	0.25 Hours
Average Hourly Rate	\$18.99
Total Labor Costs	\$4.75

Total Labor Costs	\$60.23
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Labor Loadings	\$61.43
----------------	---------

Transportation (@\$4.67/hour)	\$9.33
-------------------------------	--------

CIAC Adder	\$14.98
------------	---------

Total One-Time Pricing	\$218.48
-------------------------------	-----------------

Monthly Pricing (See Schedule COM-2)	\$8.47
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Pricing of Enhanced Metering - Interval Data**Existing Interval Metering Customers - One Time (E-mail)****Equipment Costs**

Meter with Pulse output board (incremental)	
Customer Interface Box	
Misc. Material	
Total Equipment Costs	<hr/> \$0.00

Labor

Meter Clerk	1 FTE
Average Setup Time	0.25 Hours
Average Hourly Rate	\$20.18
Total Labor Costs	\$5.05
Accounting/Billing Clerk	1 FTE
Average Processing Time	0.5 Hours
Average Hourly Rate	\$18.99
Total Labor Costs	\$9.50
Total Labor Costs	\$14.54
Labor Loadings and Mark-Up	\$22.10 (A)
Total One-Time Pricing	\$36.64

(A) Customer Care Corporate Overhead Rate (102%) Plus Mark-Up (50%).

Proposed Pricing of Enhanced Metering Services - Interval Data

Existing Interval Metering Customers - Annual Subscription Pricing (Basic Web Access)

Equipment Costs	
Meter with Pulse output board (incremental)	
Customer Interface Box	
Misc. Material	
Total Equipment Costs	0.00
Massachusetts Sales Tax on Material (@5%)	
Labor	
Meter Clerk	1 FTE
Average Setup Time	0.25 Hours
Average Hourly Rate	\$20.18
Total Labor Costs	\$5.05
Accounting/Billing Clerk	1 FTE
Average Processing Time	0.5 Hours
Average Hourly Rate	\$18.99
Total Labor Costs	\$9.50
Total Labor Costs	\$14.54
Labor Loadings and Mark-Up	\$22.10 (A)
Computer Related Software/Hardware	\$125.00 (B)
Total Annual Subscription Pricing	\$161.64

(A) Customer Care Corporate Overhead Rate (102%) Plus Mark-Up (50%).

(B) Computer Related Software/Hardware (Basic Web Access):

Web Setup/Maintenance	\$25,000
Estimated Number of Customers	200
Annual Subscription Cost	\$125

Pricing of Enhanced Metering - Remote Access Metering

Remote Access Metering (General Services with Interval Metering)

Equipment Costs

Remote Meter (incremental)	\$103.00
Customer Interface Box	
Misc. Material	
Total Equipment Costs	\$103.00

Labor

Meter Clerk	1 FTE
Average Setup Time	0.25 Hours
Average Hourly Rate	\$20.18
Total Labor Costs	\$5.05

Accounting/Billing Clerk	1 FTE
Average Processing Time	0.25 Hours
Average Hourly Rate	\$18.99
Total Labor Costs	\$4.75

Meter Tech	1 FTE
Average Installation w/Travel	1.5 Hours
Average Hourly Rate	\$27.74
Total Labor Costs	\$41.61

Total Labor Costs	\$51.40
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Labor Loadings	\$52.43
----------------	---------

Transportation (@\$4.67/hour)	\$7.00
-------------------------------	--------

CIAC Adder	\$15.00
------------	---------

Total One-Time Pricing	\$228.83
-------------------------------	-----------------

Monthly Pricing (See Schedule COM-2)	\$8.90
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(A) Cost for telephone installation and monthly telephone fee is paid for by the customer.

Pricing of Enhanced Metering - Remote Access Metering

Remote Access Metering (General Services without Interval Metering)

Equipment Costs

Remote Meter (incremental)	\$161.00
Customer Interface Box	
Misc. Material	
Total Equipment Costs	\$161.00

Labor

Meter Clerk	1 FTE
Average Setup Time	0.25 Hours
Average Hourly Rate	\$20.18
Total Labor Costs	\$5.05

Accounting/Billing Clerk	1 FTE
Average Processing Time	0.25 Hours
Average Hourly Rate	\$18.99
Total Labor Costs	\$4.75

Meter Tech	1 FTE
Average Installation w/Travel	1.5 Hours
Average Hourly Rate	\$27.74
Total Labor Costs	\$41.61

Total Labor Costs	\$51.40
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Labor Loadings	\$52.43
----------------	---------

Transportation (@\$4.67/hour)	\$7.00
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CIAC Adder	\$19.48
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Total One-Time Pricing	\$291.31
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Monthly Pricing (See Schedule COM-2)	\$11.31
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(A) Cost for telephone installation and monthly telephone fee is paid for by the customer.

Pricing of Enhanced Metering - Remote Access Metering**Remote Access Metering - (Residential)****Equipment Costs**

Remote Meter (incremental)	\$100.00
Customer Interface Box	
Misc. Material	
Total Equipment Costs	<hr/> \$100.00

Labor

Meter Clerk	1 FTE
Average Setup Time	0.25 Hours
Average Hourly Rate	\$20.18
Total Labor Costs	\$5.05

Accounting/Billing Clerk	1 FTE
Average Processing Time	0.25 Hours
Average Hourly Rate	\$18.99
Total Labor Costs	\$4.75

Meter Tech	1 FTE
Average Installation w/Travel	1.5 Hours
Average Hourly Rate	\$27.74
Total Labor Costs	\$41.61

Total Labor Costs	\$51.40
-------------------	---------

Labor Loadings	\$52.43
----------------	---------

Transportation (@\$4.67/hour)	\$7.00
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CIAC Adder	\$14.76
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Total One-Time Pricing	\$225.60
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Monthly Pricing (See Schedule COM-2)	\$8.77
---	---------------

(A) Cost for telephone installation and monthly telephone fee is paid for by the customer.

Calculation of Monthly Charge for Enhanced Metering Services

Pulse Output (General Services)

	Total Pricing	\$207.71
Less:	CIAC Adder	(14.21)
		<u>\$193.49</u>
	Proposed Annual Carrying Charge	49.94%
	Annual Enhanced Metering Charge	\$96.64
	Monthly Enhanced Metering Charge	\$8.05

Pulse Output (Residential)

	Total Pricing	\$218.48
Less:	CIAC Adder	(14.98)
		<u>\$203.49</u>
	Proposed Annual Carrying Charge	49.94%
	Annual Enhanced Metering Charge	\$101.63
	Monthly Enhanced Metering Charge	\$8.47

Remote Access Metering (General Service with Interval Metering)

	Total Pricing	\$228.83
Less:	CIAC Adder	(15.00)
		<u>\$213.83</u>
	Proposed Annual Carrying Charge	49.94%
	Annual Enhanced Metering Charge	\$106.79
	Monthly Enhanced Metering Charge	\$8.90

Remote Access Metering (General Services without Interval Metering)

	Total Pricing	\$291.31
Less:	CIAC Adder	(19.48)
		<u>\$271.83</u>
	Proposed Annual Carrying Charge	49.94%
	Annual Enhanced Metering Charge	\$135.76
	Monthly Enhanced Metering Charge	\$11.31

Remote Access Metering (Residential)

	Total Pricing	\$225.60
Less:	CIAC Adder	(14.76)
		<u>\$210.83</u>
	Proposed Annual Carrying Charge	49.94%
	Annual Enhanced Metering Charge	\$105.30
	Monthly Enhanced Metering Charge	\$8.77

COMMONWEALTH ELECTRIC COMPANY

Schedule COM-3
Page 1 of 1

Commonwealth

Annual Carrying Charge Calculation (A)

	Year	Investment	Accum		Base	Return	Income Tax	Deprec.	Revenue Requirement	Levelized
			Deprec.	Deprec.						
Cost of Debt	47.75%									
Cost of Equity	<u>52.25%</u>									
Total Cost of Capital	100.00%									
Income Taxes on Equity	(T / 1-T)									
Depreciation Expense										
Property Taxes										
Pensions & Benefits										
Employment Taxes										
Distribution O&M										
Total Carrying Charge										58.66%

(A) Based on 1999 FERC Form 1 data. Assumes 3-Year recovery period.

Commonwealth Electric Company
Contribution In Aid Of Construction
Calculation of CIAC Adder

Schedule COM-4

		Year	MACRS Rate	Begin. Bal. Cash Flow	Tax Liab. & Asset Deprec	Carrying Charges	Ending Bal. Cash Flow
Construction cost required before tax effect	\$100	1	20.00%	\$8	(35)	1	(26)
		2	32.00%	(26)	14	(4)	(16)
Return on rate base per 1999 Form 1	14.91%	3	19.20%	(16)	8	(2)	(10)
		4	11.52%	(10)	5	(1)	(6)
		5	11.52%	(6)	5	(1)	(2)
		6	5.76%	(2)	2	(0)	0
Contribution required		7	0.00%	-	-	-	-
		8	0.00%	-	-	-	-
		9	0.00%	-	-	-	-
Construction cost	\$100	10	0.00%	-	-	-	-
NPV of tax payment	<u>7.728</u>	11	0.00%	-	-	-	-
		12	0.00%	-	-	-	-
Total CIAC to be paid by contributor	<u>\$107.728</u>	13	0.00%	-	-	-	-
		14	0.00%	-	-	-	-
		15	0.00%	-	-	-	-
		16	0.00%	-	-	-	-
Actual Calc. NPV		17	0.00%	-	-	-	-
Multiplication Factor	1.07728	18	0.00%	-	-	-	-
		19	0.00%	-	-	-	-
		20	0.00%	-	-	-	-
		21	0.00%	-	-	-	-
CIAC Adder					<u>(0.000)</u>	<u>(7.728)</u>	
1999 FERC Form 1							
Long term debt	44.23%	8.81%	3.90%				
Common equity	55.77%	12.00%	6.69%				
Tax reimbursement on equity			<u>4.32%</u>				
			14.91%				

ENHANCED METERING AND INTERVAL DATA COST ASSUMPTIONSCommonwealth ElectricMaterial: (A)

Pulse (Customer) Interface Box	\$27.50
Incremental cost of new meters with output board (General)	\$30.00
Incremental cost of new meters with output board (Residential)	\$40.00
Misc Material	\$5.00
Incremental Remote Meter Cost	\$103.00
Incremental Remote Meter Cost (cust w/o interval data)	\$161.00
Incremental Remote Meter Cost (Residential)	\$100.00

Mass State Tax:

Assume Tax Exempt

Labor: (Hourly Rates) (B)

Meter Clerk	\$20.18
Meter Technician	\$27.74
Accounting/Billing Clerk	\$18.99

Transportation Costs: (C)

2001 Annual Cost	\$9,708.00
Annual Hours	2,080.00
Average Hourly Cost	\$4.67

Customer Care Corporate Overheads Rate

102.00% (D)

Contribution in Aid of Construction Adder

7.73% (E)

Carrying Charge

49.94% (F)

(A) Equipment costs based on vendor quotes.

(B) Average labor rates for personnel assigned to function, based on collective bargaining agreements.

(C) Meter van costs including lease, maintenance, repair, and fuel.

(D) Per Budgeting & Forecasting 1999 DMG Study which includes: paid absence time, benefits, payroll taxes, admin & supervision and corp overhead.

(E) This adder represents the recovery of carrying charges on tax payments related to the value of the contribution received. Assumes a 5-year tax life. See Schedule COM-4.

(F) See Schedule COM-3.